Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

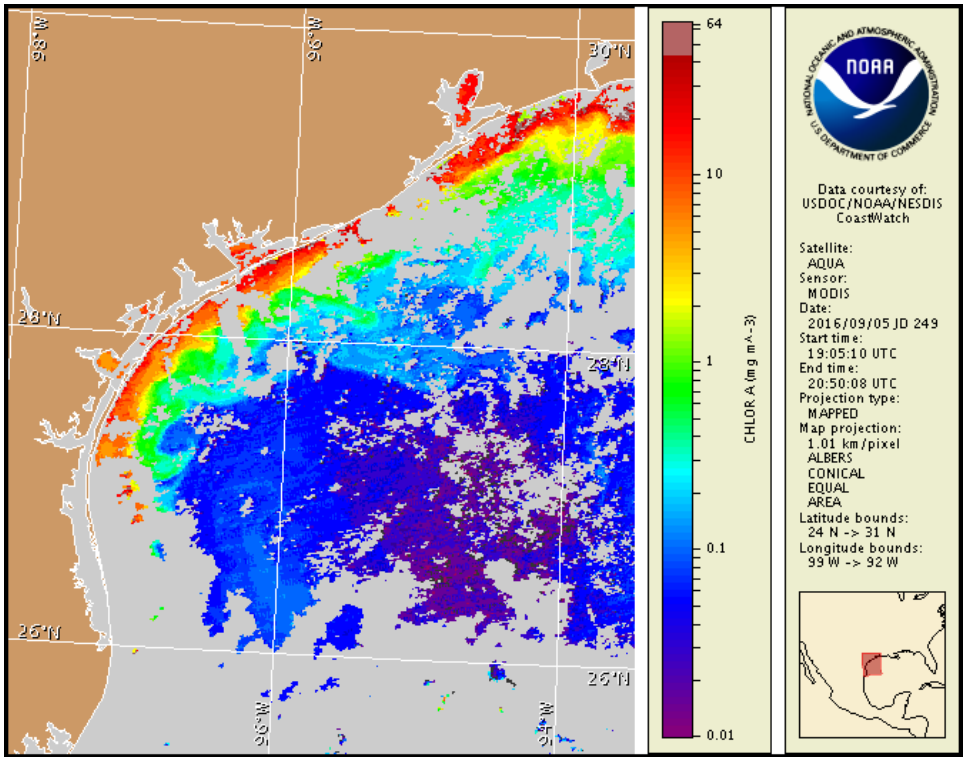
Tuesday, 06 September 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, August 29, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from August 27 to September 6: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/hab_publication/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

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To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Karenia brevis (commonly known as Texas red tide) ranges from not present to very low concentrations along the coast of Texas. Respiratory irritation and dead fish have been reported from the Padre Island National Seashore region and continued respiratory irritation may be possible Tuesday, September 6 through Monday, September 12. Our forecast will be updated if field samples confirm elevated concentrations of *K. brevis* along the coast this week. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction.

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations.

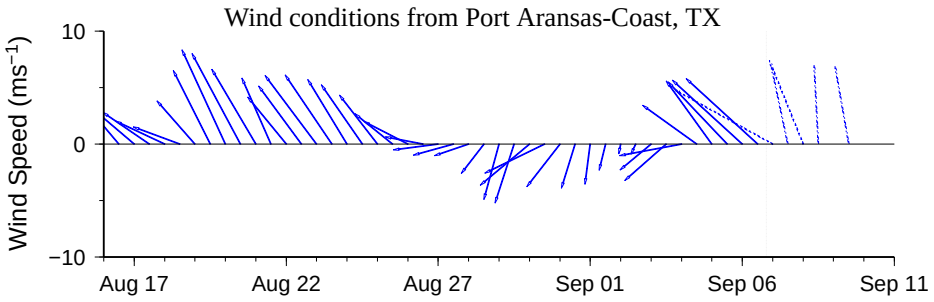
Analysis

Respiratory irritation and dead fish have been reported from mile marker 19 in the Padre Island National Seashore region, and water samples are being collected today (TPWD; 9/6). Elsewhere along the Texas coast, *Karenia brevis* ranges from background to 'very low b' concentrations. Sampling from the Texas A&M University's Imaging FlowCytobot, located on the Port Aransas ship channel, indicates that *K. brevis* ranges between 'not present' and 'very low b' concentrations (TAMU; 8/29-9/6). Coastal samples collected from the Rio Grande Valley area indicated *K. brevis* ranges between 'not present' and 'very low' concentrations (TPWD; 8/29-9/2). All other samples collected last week along the Texas coast and in the bay regions indicated that no more than background concentrations of *K. brevis* are present (TPWD; 8/29-9/2). For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Recent MODIS Aqua imagery (9/5; shown left) is partially obscured by clouds along the Texas coast from Sabine Pass to the Rio Grande, limiting analysis. Patches of elevated to very high chlorophyll (2 to >20 μg/L) are visible along- and offshore from the Sabine Pass to Padre Island National Seashore regions. Elevated chlorophyll is not necessarily indicative of the presence of *K. brevis* and may be due to the resuspension of benthic chlorophyll and sediments along the coast.

Forecast models based on predicted near-surface currents indicate a maximum transport of 10 km north from the Port Aransas region and 30 km north from PINS Mile Marker #15 from September 5-9.

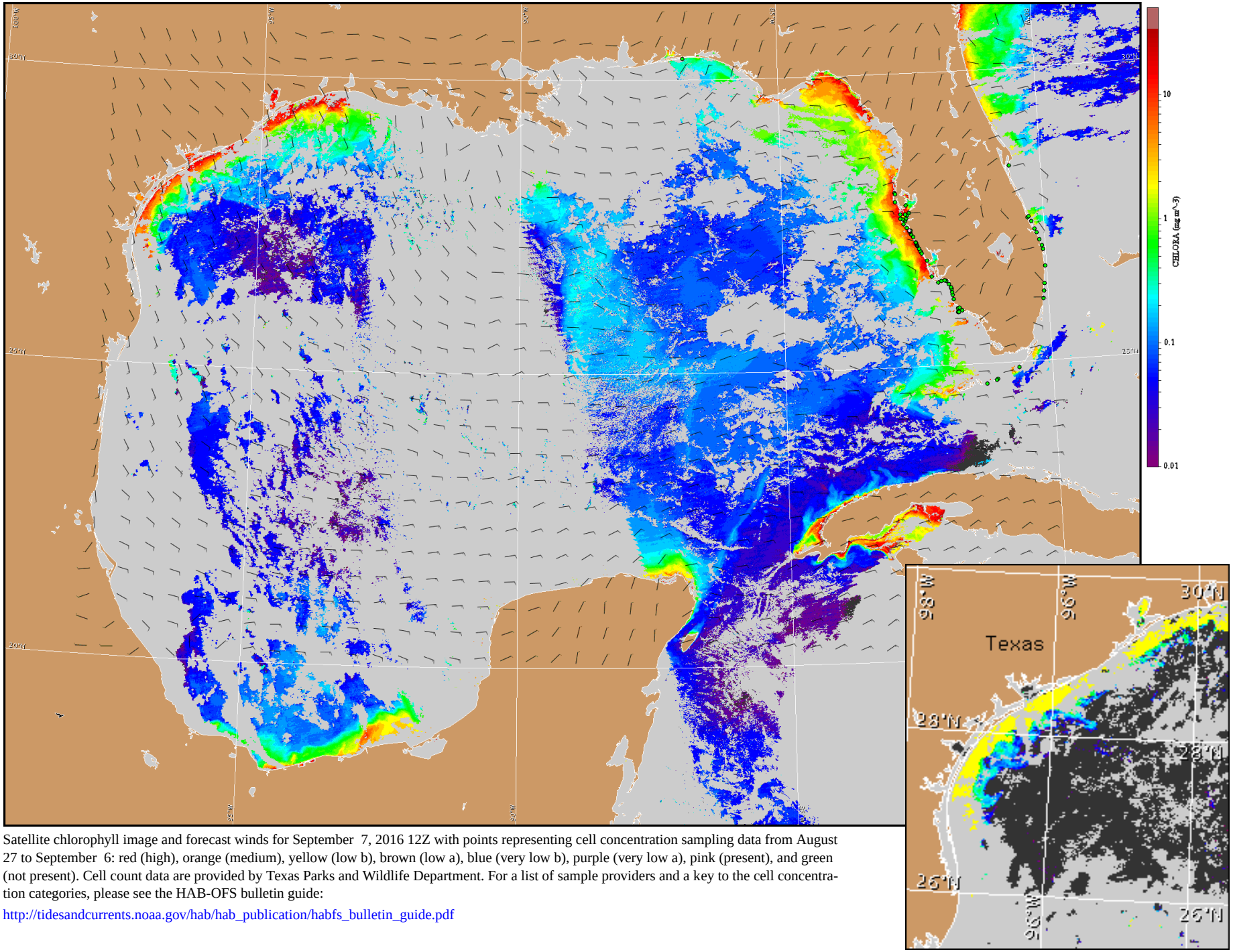
Kavanaugh, Lalime



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Port Aransas to Matagorda Ship Channel: Southeast winds (10-20kn, 5-10m/s) today through Wednesday. South winds (10-15kn, 5-8m/s) Wednesday night to Thursday becoming southeast winds (5-15kn, 3-8m/s) Thursday night through Saturday night.



Satellite chlorophyll image and forecast winds for September 7, 2016 12Z with points representing cell concentration sampling data from August 27 to September 6: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).